

IN THE CLAIMS

Please amend the claims as follows.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A thermal interface material, comprising:
a phase change polymer;
a solder material having a melting temperature approximately between 100 and 250° C; and
a plurality of thermally conductive non-fusible particles, the solder material interconnecting the non-fusible particles to form a plurality of columnar structures within the phase change polymer. ~~after the thermal interface material is heated to the melting temperature of the solder material.~~
2. (Original) The material of claim 1, further comprising a non-phase change polymer.
3. (Original) The material of claim 1, wherein the phase change polymer is a liquid above 45°C.

4. (Original) The material of claim 1, further comprising a non-fusible particle filler.
5. (Cancelled)
6. (Original) The material of claim 5, wherein the solder is added to the thermal interface material as a powder.
7. (Original) The material of claim 1, wherein a non-fusible mesh is placed within the phase change polymer.
8. (Original) The material of claim 4, wherein the thermal conductivity of the non-fusible particle filler is greater than the thermal conductivity of the fusible filler.
9. (Previously presented) The material of claim 4, wherein the non-fusible particle filler is selected from the group consisting of glass fiber, graphite fibers, carbon fibers, boron nitride, aluminum oxides, zinc oxide, aluminum, boron nitride, silver, graphite, carbon fibers, diamond, metal coated carbon fiber, and metal coated diamond.
10. (Original) The material of claim 1, wherein the fusible filler is a metal alloy.

11. (Previously presented) The material of claim 1, wherein the fusible filler is in the range of approximately 10 - 90 by weight of the total weight of the thermal interface material.
12. (Original) The material of claim 1, wherein the fusible filler is in the range of approximately 60 – 90 % by weight of the total weight of the thermal interface material.
13. (Original) The material of claim 4, wherein the total filler added for fusible filler and non-fusible particle filler is in the range of approximately 50 – 99% by weight of the total weight of the thermal interface material.
14. (Original) The material of claim 13, wherein the non-fusible filler is in the range of approximately 5 - 49% by weight of the total weight of the thermal interface material.
15. (Cancelled)
16. (Previously presented) The material of claim 1, wherein the fusible filler is selected from the group consisting of In, InBi, InSn, BiSn, PbSn, SnAg, InPbAg, InAg, InSnBi, InGa, SnBiZn, SnInAg, SnAgCu and InPb.

17. (Original) The material of claim 4, wherein choice of the non-fusible particle filler is excluded from the group consisting of lead, cadmium, mercury, antimony and arsenic.

18 – 29. (Cancelled)